

CHAPTER EIGHT

ASSESSMENT OF CHILDREN'S LEARNING AND DEVELOPMENT

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Abstract

Very limited teacher preparation programmes offer a course devoted to assessment in early childhood despite the fact that it is at the heart of teaching and learning and the development of a child. The traditional and of course the commonest method of assessment included in teacher preparation curriculum dealt so much with tests and examination or standardized tests which cannot measure all the aspects of children's development. Teachers and future teachers of young children need good knowledge of authentic assessment and documentation methods in order to have a comprehensive assessment from a developmental perspective. This article therefore, will introduce child educators to what assessment in childhood education is, furnish them with essential roles of assessment and criteria of quality and meaningful assessment. It will also describe an appropriate assessment system for young children. Most importantly, it will familiarize them with a variety of assessment strategies and methods available in early childhood and primary education.

Keywords: Assessment of children's learning and development, Care and education of young children, Traditional method of assessment, authentic assessment,

Introduction

Assessment is an important part of childhood teaching, instruction and learning. It is the key to planning appropriate childhood learning experiences and helping all children succeed. The process of determining individual developmental and educational needs informs childhood education practices and provides a template for setting individual and programme goals. It enables teachers and caregivers to know the children's current capabilities and through this they are able to provide experiences that build on children's strengths and support continued development and learning. Assessment can assist in detecting problems during the early years of the child which is the critical periods of development. Necessary steps can consequently be taken early to solve some evolving problems noticed in children later in life which can be as a result of birth defects or developmental delays in motor, language, cognitive, or social development. Examination and testing which are the most familiar methods to teachers would only measure prescribed bodies of knowledge like numeracy and literacy and cannot provide a complete picture of a child. Children's assessment should be based on their actual performance within their regular, real life experiences rather than an unnatural testing measurement device as in examination or paper and pencil. This now holds that a child educator needs a good knowledge of assessment to provide appropriate activities and experiences to help the children continue to grow in all areas of development.

Several authors agree that assessment is crucial in children's development and learning. Through assessment, professionals gain understanding of children's development and programme effectiveness. Bricker, Cripe & Slentz (2003) submitted that assessment has significance for early childhood professionals and practitioners, the families, the school and the entire programme. Gullo (2006) also acknowledged that there are general implications that assessment can have on the goals of childhood education. For instance, assessment keeps the teachers and the curriculum responsive to the needs of the children. It makes teachers to better understand children's development and monitor their progress through the curriculum. Also, it makes possible, the identification of children who are at risk for academic failure or who may need special education services. Basically, assessment benefits the children and the families. It determines a child's progress in attaining programme goals objectives and helps to

make decisions about support services for children. It also assists us to report to parents on the progress of individual children or school and enables children build skills in self-evaluation. Also, it empowers early childhood practitioners to improve teaching, gather, organize and interpret information about children's abilities and interests and to identify steps to meet individual needs (Macmillian, 2007). On the overall, assessment assists us to assess the worth of the programme and determine whether the programme goals are being met and encourages us to strive for continuous improvement (Gullo, 2006; McAfee & Leong, 2011). As asserted by Odinko & Adedigba (2012), assessment becomes an indispensable for childhood teachers, thus, whether assessment is required or not required, a good teacher should be involved in assessment to enable him plan instruction that is responsive and appropriate.

The assessment of young children is very different from the assessment of older children or people. Childhood includes the dynamic period which is characterized by rapid and complex growth in the physical, cognitive and socioemotional domains. The concern of childhood education is the optimal development of the child, in the same vein assessment must always serve in ways that enhances opportunities for optimal growth, learning and development. Hence, children's assessment should cover all the developmental areas. This encompasses the physical well-being and motor development which includes postural reactions, pretension, locomotion, manipulative skills and general body coordination, the intellectual attributes which involves cognition, language, general knowledge and understanding and the social and emotional development which embraces social relationship, emotional adjustment, habits and general life style.

According to Bredekamp and Rosegrant (1995), the way children learn and develop requires that their assessment be on an ongoing basis. Such assessment more accurately provides a broad picture of child growth, development, and learning from which wise decisions regarding the needs of individuals can be made. Children construct knowledge in experiential, interactive, concrete, and hands-on ways rather than through abstract reasoning and paper and pencil activities alone. Assessment methods must be matched with the level of mental, social, and physical development at each stage. Developmental change in young children is rapid, and there is

a need to assess whether development is progressing normally. If development is not normal, the measurement and evaluation procedures used are important in making decisions regarding appropriate intervention services during infancy and the preschool years. The teacher may want to learn about individual children. One may conduct an evaluation to assess a young child's development in language or mathematics. When there is need for further learning, the child may be assessed to describe what he or she has achieved. For example, a primary one teacher may use measurement techniques to determine what reading skills have been mastered and what weaknesses exist that indicate a need for additional instruction.

Assessment and Its Purposes in Early Childhood Education

Goodwin & Goodwin (1982) describe assessment as the process of determining, through observation or testing, an individual's traits or behaviours, a programme's characteristics, or the properties of some other entity, and then assigning a number, rating, or score to that determination. Johnston & Rogers (2002) see assessment as the process of observing, measuring or recording what learning has occurred or documenting the work of the child for the purposes of benefitting children and making wise decisions, not just to note disability and deficit. McAfee, Leong, and Bodrova (2004) define assessment as the process of gathering information about children from several forms of evidence, then organizing and interpreting that information to make decision about the child's learning and development. Also, Epstein, Schweinhart, DeBruin-Parecki & Robin (2004) explain that assessment is an ongoing process that includes collecting, synthesizing, and interpreting information about pupils, classroom and their instruction. All the definitions and descriptions of assessment given by different authors point to the fact that assessment has value for measuring children's progress and reflects all aspects of their development-cognitive, socio-emotional and physical. Also, the definitions have implications for evaluating programmes and planning future instructions.

According to Odinko & Adedigba (2012), assessment is vital to childhood education because of the various purposes it serves. The purpose of assessment of young children is to collect information necessary to make important decisions about their developmental and educational needs.

The all purposes of assessment is well captured in the NAEYC (1992) definition of assessment that assessment is a process of observing, recording, documenting the work children can do and how they do it as basis for educational decisions that affect the child including planning for groups and individual children and communicating with parents. The ultimate purpose of assessment is to make decisions about individual children, about curriculum and about programmes. Any assessment of children which does not bring about decision and planning is not meaningful and purposeful. Wortham (2008) asserts that the results of assessment regardless of the method used can be used in variety of ways while planning for instruction, reporting progress or evaluating instructional programme. Administrators also use information from assessments and other sources to evaluate, strengthen, and monitor educational programmes.

Epstein, Schweinhart, DeBruin-Parecki & Robin (2004) explain that assessment's result can identify both the well-developed and least-developed skills of children so that beneficial learning experiences can be individually planned and carried out. To them, assessment is not conducted primarily for diagnostic purposes rather, assessment provides information needed to plan programmes and curriculum that will promote each child's progress. The authors concluded that assessments are conducted for these purposes:

- To find out what children are interested in,
- To find out children's strength and areas of difficulty,
- To take informed decisions about interventions,
- To discover how children change overtime,
- To learn what children know in particular areas, such as reading,
- To link with instruction,
- To make sure instruction is responsive and appropriate, matching what children can and cannot do, and Serve as a basis to report to parents.

The purposes of assessment are also categorized into:

Monitoring Purposes: Assessment is used to monitor development of children in the three domains and risks to development for purposes of ensuring adequate progress and rule out health-related challenges to

normal development. Monitoring the trends of development in the child and evaluating programmes and services.

Diagnostic Purposes: Assessment strategies may be used for diagnosis. Just as a medical doctor conducts a physical examination of a child to diagnose an illness, psychologists, teachers, and other adults who work with children can conduct an informal or formal assessment to detect possible developmental problems or potential problems in learning and identify causes for poor performance in learning. Diagnosis can also cover identifying children for health and social services. Through this, necessary remediation will be made early in life for positive developmental and academic outcomes.

Screening Purposes: Assessment of young children is also used to place them in infant or early childhood programmes or to provide special services. To ensure that a child receives the best services, careful screening and more extensive testing may be conducted before selecting the combination of intervention programmes and other services that will best serve the child.

Instructional and Educational Purposes: Programme planning is another purpose of assessment. Information are gathered about a child's performance in order to plan an educational and developmental programme that meet child's specific needs to improve the quality of their care and education environment. After children have been identified and evaluated for an intervention programme or service, assessment results can be used in planning the programmes that will serve them. These programmes, in turn, can be evaluated to determine their effectiveness. Quality assessments provide detailed diagnostic information to guide planning for instruction and monitoring of individual student's progress over time.

Criteria for Appropriate Assessment in Childhood Education

Effective assessment of young children should:

- i. Bring about benefits for children. There must be a clear benefit—either in direct services to the child or in improved quality. According to the NRC (2009) report, high-quality assessments should be child-friendly and child-centred...According to Bredekamp & Shepard (1989), assessment should not be used to retain, track or segregate children or cause harm to young children. Jalongo & Isenberg (2012) also submit that early

childhood assessment fulfils its purpose only if the results are used to benefit children rather than label them or deprive them opportunity NAEC, SDE (2009).

- ii. Be developmentally appropriate: Coople and Bredekamp (2009) explain that quality assessment in early childhood should use knowledge of age-appropriate, individually appropriate and culturally appropriate. That is, it should include developmentally appropriate activities to differentiate assessment to the needs and interest of each child realizing that children are not the same; they do not learn in the same way and do not learn in the same pace. Assessment should be age-appropriate in both content and the method of data collection. Methods of assessment should recognize that children need familiar contexts in order to be able to demonstrate their abilities (Macmillian, 2007).

Also, assessment tasks should take linguistic and cultural differences into account recognizing that to some extent all assessments are measures of language. Each child's first- and second-language should be taken into account when determining appropriate assessment methods and in interpreting the meaning of assessment results. (Gullo, 2006; Jalongo & Isenberg, 2012).

- iii. Be comprehensive: Assessment of young children should address the full range of early learning and development, including physical well-being and motor development; social and emotional development; emphasize emerging development in all developmental domains: physical/motor, psychosocial, cognitive, language and literacy development and should focus on individual strengths and uniqueness. Abstract paper-and-pencil tasks may make it especially difficult for young children to show what they know.

- iv. Be reliable and valid: Assessment should be based on sound principles of child growth and development and should emanate from authentic (logical, meaningful, relevant, and applicable) curricula. It should recognize and support different intelligences and learning styles. It should be reflective and analytic, honest and accurate, instructive and useful, and be intertwined with instruction. Assessment policies should be designed recognizing that reliability and validity of assessment increase with children's

age. The younger the child, the more difficult it is to obtain reliable and valid assessment data.

- v. Be tailored to a specific purpose and should be fair for that purpose. Assessment designed for one purpose is not necessarily valid if used for other purposes. It should minimize or alleviate child stress to ensure best (or most successful) outcomes and should be performance, process, and product based.
- vi. Use multiple windows: A reliable or quality assessment should make use of multiple windows in children assessment. Using multiple windows means using more than one source of information, collecting information in different contexts and using different methods when assessing children. Assessment of young children should be ongoing and should occur in many contexts and be collaborative with learners, parents, teachers, and specialists as valuable sources of information and when needed for intervention. As a result of the unreliability of direct measures of young children, assessment should never be based on a single test result but should include multiple sources of evidence, especially reports from parents and teachers. As noted by Odinko & Adedigba (2012), when assessment occurs regularly and over time, carried out in different locations with diverse methods, there can be more depth and breadth to the information obtained, which provides a more comprehensive picture of how the child is functioning in all developmental areas.
- vii. Parents should be a valued source of assessment information, as well as an audience for assessment results. National Association of School Psychology (2005) submitted that the role of parents is one of the critical part of assessment. Hence, child educators should work together with parents as team. Assessment results should be shared with parents as part of an ongoing process that involves parents in their child's education (Scott-Little, 2001; Snow & Van, 2008; Odinko & Adedigba, 2012).

Methods and Strategies of Assessment in Childhood Education

As noted by Odinko and Adedigba (2012), assessment in childhood education uses various different forms of measuring techniques to ascertain how well a child has learned a particular behaviour or has acquired a particular skill. Assessment in early childhood should employ a

variety of methods to determine the development of the individual child. This includes carefully selected formal and informal strategies that measure specific characteristics over several designated periods of time.

Formal testing practices involve rote memorization activities, paper and-pencil tasks, and skill-and-drill reviews mostly conducted in a controlled environment and places with great constraints on children's behaviour. Also, formal testing allows for fair comparisons among individual or groups of test takers and each child is assessed in exactly the same way (Scott-Little, 2001; Epstein, et al 2004; Guddemi & Case 2004; Wortham, 2008). This method cannot give accurate and comprehensive information about the child and is clearly at odd with what is known about how young children learn, sustain curiosity and interest, and retain information because their assessment should not focus on skill drills (Epstein, et al 2004; Neisworth&Bagnato, 2004; Odinko& Adedigba, 2012).

Informal assessment is a procedure for obtaining information that can be used to make judgements about children's learning, behaviour and characteristics or programmes using means other than standardized instruments. Informal assessments on the other hand rely more heavily on observational and work sampling techniques that continually focus on child performance, processes, and products over selected periods of time and in a variety of contexts. According to Neisworth & Bagnato (2004), when assessment practices are not adequately comprehensive to include well designed observation and performance based assessments to augment formal test scores, it can easily mislead in making decision about developmental progress of children. That is why several authors agreed that the most reliable method for children assessment is through authentic measures which sample real-life behaviour in real life-setting to generate a comprehensive picture of the child.

Koralek (2004), Judy, Jablon, Dombro & Dichtelmiller (2007) identified observations, checklists, and portfolios as some of the informal methods of assessment available to early childhood educators. These identified methods are generally accepted to be fairly popular methods of assessing young children's learning and development. NAEYC and NAECS/SDE (2003) emphasize that assessment data should be gathered from realistic settings and situations that reflect children's actual performance. Epstein et al (2004) submit that the ideal method of assessing children is through authentic naturalistic observations that occur on an ongoing basis.

Assessment should take place in a child's normal setting, reflect everyday relationships and experiences be conducted in familiar contexts and settings such as the classroom, playground, home (Pennsylvania Standards for Learning-Assessment & Curriculum, 2005).

The nature of authentic assessment has been described by many authors (NAEYC and NAECS/SDE, 2003; Neisworth & Bagnato, 2004; Epstein et al., 2004; Odinko and Adedigba, 2012). Authentic assessment includes observations and tasks that occur in the context of regular play or activities, in settings typical to the child. The authors identified many advantages of authentic assessment over traditional methods. Authentic assessments are child-centered and interactive, resulting in more easily generalized information about the child's ability to interact with the everyday environment. They capture a large number of behaviours across multiple domains and allow the child multiple opportunities to demonstrate a behaviour or skill in multiple settings with preferred and multiple partners, objects, and materials, resulting in a more valid estimate of developmental status. When students' performance on standard tasks or protocols is complemented with observations about what a child can do in 'real world' environments or with particular people, the resulting rich data may offer educators more insight into each child's unique strengths and needs. The more naturalistic the setting for assessment the more likely a thorough and accurate assessment of children's skills and abilities will occur.

NAEYC and NAECS/SDE (2003) list five methods in their definition of assessment: Assessment: A systematic procedure for obtaining information from observation, interviews, portfolios, projects, tests, and other sources that can be used to make judgments about children's characteristics. The NRC committee on early mathematics learning recommendations (2009) offers three broad categories of assessment methods useful for formative purposes:

Interviews

According to National Research Council (2009), interviews allow teachers and students to go beyond observation and tasks to probe the child's thinking and allows children to explain behaviour, work samples, or particular answers. It is a good way to gather information about how a child feels about different activities and things that interest him/her. Assessment of young children should balance the task approach,

observations, and interviews to robustly capture what students understand and can do. Information should be gathered from the parent's perspective about developmental relationships within the family. This may include the parent's perspective of the social and emotional climate at home.

Portfolio

Arter and Spandel (1992) define a portfolio as a purposeful collection of students' work that tells the child's efforts and progress in a given area. A portfolio is a record of the teacher's observations and comments as well as a wide selection of the representative work that has been selected by the child and teacher together. It documents a child's efforts, interests, progress, and achievement in a given area or areas. A portfolio is a flexible and adaptable collection over time of various concrete work samples showing many dimensions of the child's learning. It focuses on the child's strengths and demonstrations of knowledge and skills. Portfolios, work samples, and teacher observation across time can provide the tools necessary to identify individual strengths and weaknesses. The portfolio should include, but not be limited to collection of informal and formal work, academic and non-academic, that can include samples of writing; processes and results of investigations, problem solving and experiments, including photographs or products; art work; audiotapes; interviews; and lists of books read. Each child should have an assessment portfolio. These types of assessment tools are particularly ideal for use in the primary schools when children are developing knowledge and skills in several subject areas at different rates. Yet, they have been used in preschools to document and share children's progress with parents and administrators (Scott-Little, 2001).

Observation

Observation is one of the oldest and best methods for learning about children. Most of what is known about child growth and development is the result of some forms of observation. Minde (2003) affirmed that many behaviours of children cannot be measured in any other way, hence, assessment of young children should rely heavily on the results of observations and descriptive data. The advantages observation has over other methods of assessment when it comes to assessment of children are highlighted by many authors. Leonard (1997) states that observation helps teachers get to know children as individuals with unique personalities,

provide basis for making educational decisions. It provides vital information about each child's needs, interest, abilities and learning styles. Estee (2004) also buttresses the usefulness of observation in children assessment and submitted that careful observation of children provides valuable information about their development in psychomotor, cognitive, and affective domains thus enabling teachers to differentiate instruction and more effectively meets the needs of the child. Data collected from observations are not limited to children's development but can also be used to provide objective information about teacher's performance and professional development.

Tools of Observation

There are different tools of observation available for use in Early Childhood Education from which teachers and care givers can choose in conducting assessment of their children. The tools are grouped according to their types. These are descriptive records, count methods and rating scales.

Descriptive Records

These are those that describe observable behaviours or give description of what occurred. Among these are narrative records, anecdotal records.

Narratives Records: These are the most detailed which give full account or story like of the event and usually includes verbatim. They are like video recordings with continuous record of everything said or done during an assessment, written as the behaviour is observed.

Anecdotal Records: Give a brief written description of a child's behaviour at one time. These are short, factual, narrative descriptions of child behaviours and skills over time. They are focused short narratives account of a specific event that provides insight into a particular behaviour and a basis for planning a specific teaching strategy (Mindes, 2003).

Running records: These are similar to anecdotal records but are much longer. Focuses on a sequence of events that occurs over time. An observer objectively writes in a narrative format everything the child did and said for a specific time period such as thirty minutes. Running records are especially helpful in analysing social skill development or behaviour

concerns which help to obtain a more detailed insight into behaviour over a period of time.

Jottings: These are short notes about significant aspect or characteristics of a behaviour or event. They take less time to write than narratives and anecdotal records but preserve important details by using phrase and abbreviations.

Count Methods

Count Methods make use of count or tallies to preserve information about the presence or absence, frequency or number of occurrence or duration of behaviour. Here we have:

Frequency counts: This is a tool records of how often a specific event or behaviour occurs. This method can help teachers discover how the environment is being used or a particular activity is being performed. It involves counting the number of times an event takes place or a behaviour occurs.

Checklist: Check lists are designed to record the presence or absence of specific traits or behaviours. It makes a list of behaviours or skills to identify children's skills and knowledge. A checklist enables teachers to observe and easily check off what children know and are able to do. A checklist can indicate activities across a range of developmentally appropriate tasks, abilities and competencies in social, physical, intellectual, emotional and language areas. A checklist that is carefully designed can tell a lot about one child or the entire class.

Event sampling: This focuses on a particular behaviour during a particular event over time (e.g., behaviour at lunchtime, behaviour in a reading group). It identifies a targeted behaviour to be observed during particular times (e.g., fighting during transition activities).

Time sampling: This records particular events or behaviours at specific time intervals (e.g., five minutes, ten minutes). This is done by tallying a specified behaviour while it is happening. It helps to identify when a particular child demonstrates a particular behaviour and answers the question whether a child does something all the time or just at certain times and events (Mindes, 2003).

Rating Scales

These are data collection tools that rate or rank behaviour in terms of kind or account. They provide additional information about observed behaviours. Rating scales are planned to record something specific. They are used to record the degree to which a quality or trait is present. Rating scales require the observer to make a judgment about the quality of what is being observed. Where a checklist only indicates the presence or absence of a trait, a rating scale tells how much or how little is present (e.g. always, almost always, sometimes, never or above average, average, below average or very good, good, fair, poor). Rating scales can be used by the teacher as a way to organize his/her perceptions of children's development or behaviour into scales. Teacher Ratings are useful in assessing children's cognitive and language abilities as well as their social-emotional development. It can also be parents' ratings which integrate parents into the assessment process. Parents who are encouraged to observe and listen to their children can help detect and target important milestones and behaviours in their children's development.

Conclusion

Young children are growing and changing at a rapid pace, and consequentially, their behaviour and performance can be quite unpredictable from day to day. That is why researchers agreed that their assessment should be based on their actual performance within their regular, real-life experiences. Whatever method one chooses to use, the end result of all assessment should be kept in mind. Assessing children's behaviours, skills, competencies, preferences, interactions, strengths, progress and needs are to better understand them and support their learning and development. Assessment should be to find the best strategies and resources to help each individual child learn and develop, align with the early learning goals and values in developing curriculum and early childhood programmes. Assessing to promote children's learning and development is highly essential because many developmental deficits or differences, the earlier they are detected and the earlier intervention is planned, the more likely the child will be able to overcome them or compensate for them. A child educator should be vast in the use of a variety of informal and formal assessment methodologies to provide a balance in perspectives. So far, assessment is continuing to become more important to the provision of high quality childhood education services,

childhood educators should be prepared to meet this challenge. Suffice it to recommend here that the accreditation bodies of all institutions that train teachers and personnel for the care and education of young children should make it mandatory that they all include a child assessment component in their programmes to inform and equip educators on childhood assessment and techniques. Also, knowing fully that it takes time to become proficient in the best uses of authentic assessment, all stakeholders of childhood care and education should be committed to training and ongoing professional development.

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